

REMARKS

Applicants have amended the specification to include a claim to priority. The reference to the prior application was previously submitted within the time period set forth in 37 CFR 1.78(a) and the information concerning the benefit claim was recognized by the USPTO as shown by its inclusion on the first filing receipt.

Claims 1 and 2 have been amended.

No new matter has been added by this amendment.

Claims 1-7 were previously cancelled by preliminary amendment.

Claims 8-12 are pending in the application.

Specification Objection

The abstract of the disclosure is objected to because it does not recite any process steps.

Applicants have amended the Abstract to recite process steps.

Applicants submit these amendments fully address this objection.

Claims Rejections – 35 USC § 112

Claims 8-12 are rejected under 35 USC § 112 first paragraph, as failing to comply with the written description requirement. The Examiner states:

“The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention. Specifically, the claim recites “a water-swellable filter,” “a filter substrate.” The specification as originally filed in 09/942,401 nowhere recites such a filter. Rather, the specification refers to a porous substrate and the formation of a porous plug. There is no reference to such a porous plug as a water-swellable filter.”

Claims 8 and 9 have been amended to replace the term “filter” with “porous”.

Amended claim 8 is now directed to a process for fabricating a porous plug, such that the hydrogel coating swells upon contact with water, support for this amendment can be found in paragraph [0006] of applicants’ specification.

Applicants submit these amendments fully address this rejection.

Claims Rejections – 35 USC § 102

Claims 8-12 are rejected under 35 U.S.C. § 102(b) as being anticipated by U.S. Patent No. 4,743,258 to Ikada et al (“Ikada”).

These rejections are respectfully traversed in view of the amendment to claim 8.

Of the claims rejected claim 8 is independent, with the remaining claims dependent thereon.

Amended Claim 8 now recites:

A process for fabricating a porous plug, comprising the steps of providing a porous substrate comprising a plurality of passageways therethrough, disposing into the passageways a hydrophilic polymer, subsequent to the disposing step, irradiating the substrate and the hydrophilic polymer, to induce cross-linking of the hydrophilic polymer, such that the polymer forms a hydrogel coating on the walls of the passageways, wherein the hydrogel coating swells upon contact with water.

The examiner states in the Office Action mailed January 18, 2006:

“this reference [Ikada] does not explicitly refer to the coated, porous substrate is water swellable or that the irradiated coating forms a hydrogel. Nevertheless, Ikada teaches the same materials and process steps as claimed by applicant. Consequently, unless some critical process parameter is not recited by the claims, it is the examiner's position that the coated, porous substrate of Ikada inherently possesses these physical properties.”

Applicants submit that Ikada fails to disclose at least the claimed features of irradiating the substrate and the hydrophilic polymer, to induce cross-linking of the hydrophilic polymer, such that the polymer forms a hydrogel coating on the walls of the passageways, and that the hydrogel coating swells upon contact with water.

In particular, Ikada discloses a polymerization which is initiated by irradiating the base material and a monomer, in order to form radicals that facilitate a graft polymerization. (See col 2, line 51 to col 3, line 3):

The water-soluble and substantially nonionic polymer(s) may be attached onto the surface of a base material in a manner well-known in the art under the conditions selected to allow the polymer(s) to be attached in the ratio as determined above. The attachment may be carried out by, for example, (A) forming radicals or peroxides on the surface of a base material and contacting monomer(s) therewith, thus effecting graft polymerization; or (B) previously forming polymer(s) and chemically attaching them onto the surface of the base material by taking advantage of reactive groups thereof. Said radicals or peroxides may be formed by (1) irradiating with high-energy radiation such as electron beam or .gamma.-ray; (2) irradiating with UV light; (3) low-temperature plasma

discharge; (4) corona discharge; (5) ozone treatment; and (6) adding a radical polymerization initiator such as benzoyl peroxide. Polymerization may be carried out by adding monomer(s) simultaneously with the base material to be treated at the treatment step or contacting the treated base material with the monomer(s).

Thus Ikada does not anticipate claim 8.

For this reason applicants submit that claim 8, dependent claims 9-12 are not anticipated by the Ikada reference.

In view of the amendments and remarks herein, applicants submit the claims are patentably distinct over the prior art and allowable in form.

The Commissioner is hereby authorized to charge payment of any additional fees associated with this communication or credit any overpayment to Deposit Account No. 02-1666.

If the Examiner has any questions or comments relating to the present application, he or she is respectfully invited to contact Applicant's agent at the telephone number set forth below.

Respectfully submitted,

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